

Abstract

The system and method of the present invention is to drive a slave axis (S\_A) with a value which indicates to said slave axis that the guide axis (L\_A) has already rotated further than is actually the case. This can be achieved by adding a correction angle ( $\varphi_{\text{corr}}$ ) to the measured angle ( $\varphi_{\text{L\_meas}}$ ) of the guide axis. In order to configure the virtual onward rotation in such a way that a lag error of the slave axis is just compensated as a result, guide axis angles ( $\varphi_{\text{L\_meas}}$ ) are increased by respective correction angles ( $\varphi_{\text{corr}}$ ) which are proportional to the angular velocity ( $\omega_{\text{L}}$ ) of the guide axis and weighted with the data propagation time ( $T_{\text{T}}$ ) of the position measured value ( $\varphi_{\text{L\_meas}}$ ) of the guide axis and the delay ( $T_{\text{R}}$ ) of the position control system of the slave axis, said correction angles ( $\varphi_{\text{corr}}$ ) preferably being dimensioned in accordance with  $\varphi_{\text{corr}} = \omega_{\text{L}} * (T_{\text{T}} + T_{\text{R}})$ .

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